

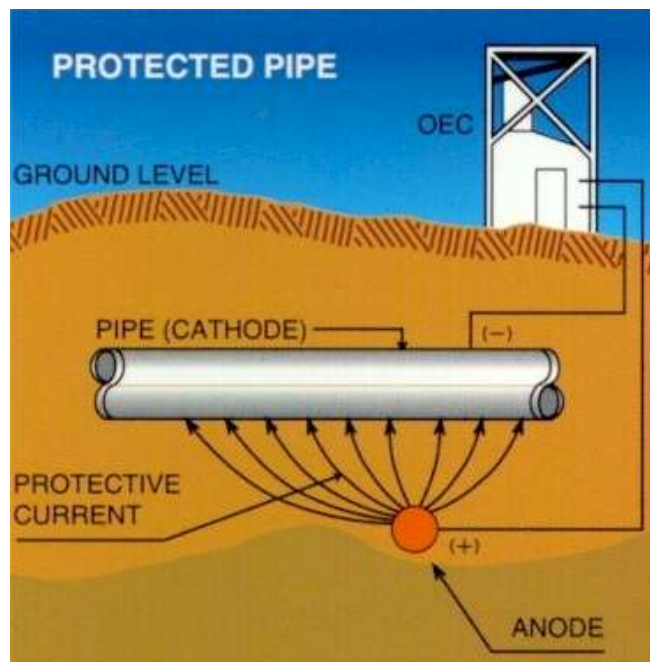


• Consulting • Training • Expert Witness • Failure Analysis • Design Review • Corrosion Test • Inspection • Coatings • Materials • CP • >>>

Cathodic Protection & Anodic Protection

WebCorr has NACE certified Corrosion Specialist providing corrosion advisory services, corrosion consulting, in-house training, online and distance learning corrosion courses, corrosion diagnosis, failure analysis and expert witness in litigation and arbitration cases related to corrosion, materials, metallurgy, paints and metallic coatings including thermal spray metallizing, galvanizing, anodizing, chromating, phosphating, electroplating, electroless plating, mechanical plating, and sheradizing or diffusion coating.

Our NACE certified Corrosion Specialist provides cathodic protection design and consultancy services, and cathodic protection training.



- Design and consultancy services for galvanic anode and impressed current cathodic protection systems for underground pipelines and storage tanks, submarine pipelines, offshore platforms, FPSO, ships and vessels, in accordance with the following international standards:
 - AS 2832-1 Cathodic protection of metals - Part 1: Pipes and cables
 - AS 2832-2 Cathodic protection of metals - Part 2: Compact buried structures
 - AS 2832-3 Cathodic protection of metals - Part 3: Fixed immersed structures
 - AS 2832-4 Cathodic protection of metals - Part 4: Internal surfaces
 - BS ISO 15589-1 Petroleum and natural gas industries - Cathodic protection of pipeline transportation systems - On-land pipelines
 - BS ISO 15589-2 Petroleum and natural gas industries - Cathodic protection of pipeline transportation systems - Offshore pipelines
 - BS 7361-1 Cathodic protection - Part 1: Code of practice for land and marine applications
 - BS EN 12474 Cathodic protection of submarine pipelines
 - NACE SP0169 Control of External Corrosion on Underground or Submerged Metallic Piping Systems
 - NACE SP0176 Corrosion Control of Submerged Areas of Permanently Installed Steel Offshore Structures Associated with Petroleum Production
 - DNV-RP-B401 Cathodic Protection Design
 - DNV-RP-F103 Cathodic Protection of Submarine Pipelines by Galvanic Anodes
 - NORSOK M-503 Cathodic protection
- Design and consultancy services for cathodic protection of concrete structures such as tunnels, jetties, marine concrete structures, and preservation of heritage buildings, in accordance with the following international standards:
 - AS 2832-5 Cathodic protection of metals - Part 5: Steel in concrete structures

- BS EN 12696: Cathodic Protection of Steel in Concrete;
- NACE SP 0290: Cathodic Protection of Reinforcing Steel in Atmospherically Exposed Concrete Structure;
- NACE SP 0187: Design Considerations for Corrosion Control of Reinforcing Steel in Concrete
- Third party independent review of cathodic protection design and verification of all design calculations including attenuation calculations for pipelines, both onshore and offshore pipelines
- **Optimization of cathodic protection design to achieve optimal efficiency of the installed cathodic protection system.**
- **Quantitative determination of the degree of protection (CP criteria DO NOT tell you the degree of protection).**
- **Measurement and prediction of the residual corrosion rate for pipelines and structures under cathodic protection (with CP "ON").**
- Potential drop calculations for specific cases to verify protection limit, e.g. narrow areas, internal caissons, tunnel systems.
- Selection of sacrificial anodes and impressed current (ICCP) anodes in cathodic protection systems
- Cathodic Protection Design of stainless steel and duplex stainless steels
- Assessment and evaluation of material compatibility with cathodic protection systems
- Specification, commissioning, testing and monitoring and trouble-shooting of cathodic protection & anodic protection systems.
- Customization, calibration and verification of reference electrodes (half-cells), Linear Polarization Resistance (LPR) probes and multi-depth sensors
- Evaluation of Cathodic Protection Survey and Inspection Data
- Cathodic protection and anodic protection training courses
- Testing of aluminum, magnesium and zinc anode in accordance with NACE, ASTM, BS, ISO and DnV standards
- Feasibility study of anodic and cathodic protection system
- Condition assessment and remaining life estimation of existing cathodic protection systems
- Identification and mitigation of stray current corrosion in accordance with NACE SP0177.
- Third party independent review of anodic protection design and verification of all design calculations

Corrosion Training Courses Related to Cathodic Protection & Anodic Protection:

The following corrosion training courses are related to cathodic protection and anodic protection. These corrosion short courses can be conducted at any time for you as in-house training courses, course-on-demand, online courses or distance-learning courses.

- An Advanced Course in Cathodic Protection
- Design and Operation of Pipeline Cathodic Protection Systems:
 - Design, Installation, Operation, Maintenance, Survey and Monitoring
- Cathodic Protection of Underground Pipelines
- A Basic Course in Corrosion Control and Prevention
- Marine Corrosion, Causes and Prevention
- Concrete Corrosion: Causes and Prevention
- An Advanced Course in Concrete Durability
- Emerging Corrosion Control Technologies for the Repair and Rehabilitation of Concrete Structures
- Protective Coatings: Inspection, Maintenance and Repair

Public courses, seminars and workshops are also conducted regularly. The schedule of corrosion short courses offered to the public for the current year is available [here](#).
